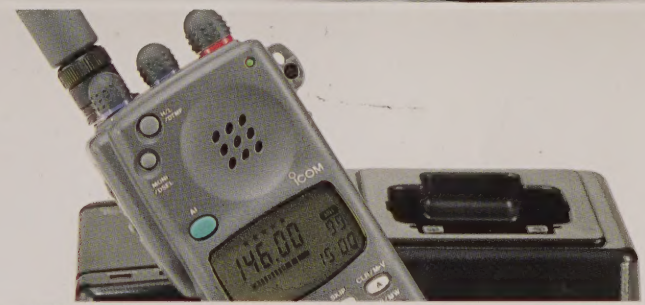




OPTIONS GUIDE

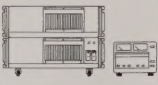
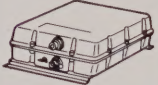

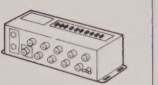



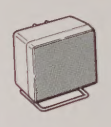
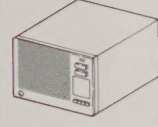

AMATEUR PRODUCTS



icom inc.

HF ALL BAND TRANSCEIVERS

IC-781
IC-765
IC-728
IC-725
IC-729
IC-726
IC-735
IC-751A

IC-4KL 1 kW HF LINEAR AMPLIFIER	AH-2a, AH-3 HF AUTOMATIC ANTENNA TUNERS	AT-160 HF AUTOMATIC ANTENNA TUNER	EX-627 HF AUTOMATIC ANTENNA SELECTOR	PS-55 DC POWER SUPPLY
				
Advanced all-solid-state linear amplifier equipped with a fully automatic antenna tuner.	Allow HF operation in apartments, condos or for mobile operations.	Automatically matches your IC-728 or IC-729 to an antenna system.	Automatically selects the most suitable antenna from up to 7 antennas.	DC power supply for Icom HF transceivers. 13.8 V DC, 20 A.
SM-8 DESKTOP MICROPHONE	SM-20 DESKTOP MICROPHONE	SP-7 EXTERNAL SPEAKER	SP-20 EXTERNAL SPEAKER WITH AUDIO FILTERS	CT-17 CI-V LEVEL CONVERTER
				
Up/down switches are included. Can be connected to 2 Icom transceivers.	High-quality microphone with a heavy, stable base.	External speaker for base station operation. 8 Ω , 5 W.	High performance speaker with audio filters. 8 Ω , 5 W.	For remote control using a personal computer equipped with an RS-232C port.

■ DC POWER SUPPLIES

- **IC-PS15** DC POWER SUPPLY For base station use.

Output voltage: 13.8 V DC
Max. current: 20 A

- **IC-PS30** DC POWER SUPPLY System power supply. Equipped with 3 output connectors.

Output voltage: 13.8 V DC
Max. current: 25 A

- **IC-PS35** INTERNAL POWER SUPPLY Built-in type power supply for the IC-751A.

Output voltage: 13.8 V DC
Max. current: 20 A

■ SPEAKER

- **IC-SP3** EXTERNAL SPEAKER Designed for base station operation. 8 Ω , 4 W.

■ LINEAR AMPLIFIER

- **IC-2KL** 500 W LINEAR AMPLIFIER Advanced all-solid-state linear amplifier.

■ ANTENNA TUNERS AND ANTENNA

- **AT-150, IC-AT500** HF AUTOMATIC ANTENNA TUNERS

AT-150: Automatically matches your Icom HF transceiver to an antenna system.
Max. input power: 150 W
IC-AT500: Most suitable for the IC-2KL.
Max. input power: 500 W

- **AH-2b** ANTENNA ELEMENT 2.5 m (8.2 ft) stainless steel antenna element for 3.5–28 MHz mobile operation.

■ MICROPHONES

- **SM-6** DESKTOP MICROPHONE Easy-to-use desk-top microphone for base station operation.

- **HM-12** HAND MICROPHONE Hand microphone with up/down switches for scanning.

■ CI-V SYSTEMS

- **CT-16** SATELLITE INTERFACE UNIT

Allows easy tuning for satellite communications using another Icom transceiver.

- **UX-14** CI-IV/CI-V CONVERTER Allows you to use the CI-V System for the IC-751A.

■ INTERNAL UNITS

- **CR-64, CR-282** HIGH-STABILITY CRYSTAL UNITS Provide improved frequency stability. $\pm 100\text{Hz}$ ($-30^{\circ}\text{C} \sim +60^{\circ}\text{C}$; $-22^{\circ}\text{F} \sim +140^{\circ}\text{F}$)

- **IC-EX243** ELECTRONIC KEYS UNIT Allows fast and efficient CW contacts.

- **EX-310** VOICE SYNTHESIZER UNIT An electronically generated voice announces the displayed frequency in English.

- **UI-7** AM-FM UNIT AM transmit, FM transmit/receive unit for the IC-728 and IC-725.

- **UT-30** PROGRAMMABLE TONE ENCODER UNIT Allows you to access a repeater that requires a subaudible tone.

- **UT-36** VOICE SYNTHESIZER UNIT A clear, electronically-generated voice announces the displayed frequency in English or Japanese.

■ BRACKETS AND HANDLES

- **IC-MB5, IC-MB12, MB-18** MOBILE MOUNTING BRACKETS Transceiver brackets for mobile operation.

- **MB-19** RACK MOUNTING HANDLES Transceiver mounting handle for a 19-inch mounting rack.


- **MB-23** CARRYING HANDLE Carrying handle for easy portable operation.


FILTERS

	Center frequency	Passband width	IC-781	IC-765	IC-728 IC-725 IC-729 IC-726	IC-735	IC-751A
FL-52A	455 kHz	500 Hz/ – 6 dB	Built-in	Built-in			Either
FL-53A		250 Hz/ – 6 dB	Built-in				
FL-32A		500 Hz/ – 6 dB	Built-in	Built-in			Built-in
FL-63A	9.0106 MHz	250 Hz/ – 6 dB				Either	*2
FL-100		500 Hz/ – 6 dB					
FL-101		250 Hz/ – 6 dB	Built-in		Either		
FL-102	9.0100 MHz	6.0 kHz/ – 6 dB	Built-in				
FL-103	9.0115 MHz	2.8 kHz/ – 6 dB	*1				

*1 Replaces built-in FL-102.

*2 Replaces built-in FL-32A.

 : Applicable

 : Not applicable



ALL MODE TRANSCEIVER OPTIONS

Options	Transceivers															
	IC-PS15	PS-55	IC-PS30	IC-PS35	IC-SP3	SP-7	SP-20	EX-20	AH-7000	AG-25	AG-35	AG-1200	HM-12	SM-6	SM-8	SM-20
Receiver unit																
2400 Hz band unit																
1200 MHz band unit																
Voice synthesizer unit																
Tone squelch unit																
Electronic keyer unit																
High-stability crystal units																
CR-293																
CR-263																
CR-64																
CT-17																
CT-16																
TV-1275																
ATV adapters																
TV-970																
Handles																
MB-23																
MB-19																
Mobile mounting bracket																
IC-MB5																
SM-20																
Desktop microphones																
SM-8																
SM-6																
Hand microphone																
HM-12																
Weatherproof preamplifiers																
AG-1200																
AG-35																
AG-25																
Antenna																
AH-7000																
Antenna selector																
EX-20																
SP-20																
External speakers																
SP-7																
Internal DC power supply																
IC-PS35																
IC-PS30																
External DC power supplies																
PS-55																
IC-PS15																

*1 A hand microphone is already supplied with the transceiver.

*2 For "H" versions only. A DC power supply is already built into "A/E" versions.

*3 Style and size are matched with the transceiver.

*4 When an optional UX-R96 is installed.

*5 When an optional UX-97 is installed.

*6 Up to two UT-34's can be installed.

■ : Applicable

□ : Not applicable

VHF/UHF ALL MODE TRANSCEIVERS

IC-970A/E/H

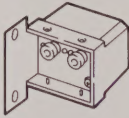
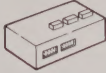

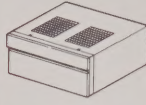

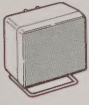
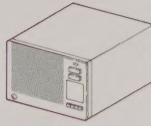



IC-575A/H

IC-275A/E/H

IC-375A

IC-475A/E/H

IC-1275A/E

AG-25, AG-35, AG-1200 WEATHERPROOF PREAMPLIFIERS	CT-16 SATELLITE INTERFACE UNIT	CT-17 CI-V LEVEL CONVERTER	PS-55 DC POWER SUPPLY	AH-7000 SUPER WIDEBAND OMNIDIRECTIONAL ANTENNA
				
Mast-mount preamplifiers for compensating for coaxial cable loss.	Easy tuning for instant satellite communications.	For remote control using a personal computer.	DC power supply for Icom all mode transceivers.	Super wide frequency coverage. 25~1300 MHz.
SP-7 EXTERNAL SPEAKER	SP-20 EXTERNAL SPEAKER WITH AUDIO FILTERS	SM-6 DESKTOP MICROPHONE	SM-8 DESKTOP MICROPHONE	SM-20 DESKTOP MICROPHONE
				
External speaker for base station use. 8 Ω , 5 W.	High performance speaker with audio filters. 8 Ω , 5 W.	Easy-to-use electret condenser-type microphone.	Up/down switches are included. Can be used with 2 Icom transceivers.	High-quality microphone with a heavy, stable base.

■ DC POWER SUPPLIES

● IC-PS15 DC POWER SUPPLY

Output voltage: 13.8 V DC
Max. current: 20 A

● IC-PS30 DC POWER SUPPLY

Equipped with 3 output connectors.
Output voltage: 13.8 V DC
Max. current: 25 A

■ SPEAKER

● IC-SP3 EXTERNAL SPEAKER

Designed for base station operation. 8 Ω , 4 W.

■ MICROPHONE

● HM-12 HAND MICROPHONE

Equipped with up/down switches.

■ BRACKETS AND HANDLES

● IC-MB5 MOBILE MOUNTING BRACKET

Transceiver bracket for mobile operation.

● MB-19 RACK MOUNTING HANDLES

Transceiver mounting handles for a 19-inch mounting bracket.

● MB-23 CARRYING HANDLE

Carrying handle for easy portable operation.

■ ATV ADAPTER

● TV-1275 ATV ADAPTER

Allows advanced ATV (amateur television) operation.

■ ANTENNA SELECTOR

● EX-20 AUTOMATIC ANTENNA SELECTOR

Selects a 28 or 50 MHz antenna synchronized with the IC-575A/H.

■ INTERNAL UNITS

● CR-64, CR-263, CR-293 HIGH-STABILITY CRYSTAL UNITS

Provide improved frequency stability.
Frequency stability: ± 0.5 ppm
($-30^{\circ}\text{C} \sim +60^{\circ}\text{C}$; $-22^{\circ}\text{F} \sim +140^{\circ}\text{F}$)

● IC-EX243 ELECTRONIC KEYS UNIT

Provides electronic keyer operation.

● UT-34 TONE SQUELCH UNIT

Provides a "personalized" squelch system with other stations.

● UT-36 VOICE SYNTHESIZER UNIT

An electronically generated voice announces the displayed frequency in English or Japanese.

■ RECEIVER AND BAND UNITS

● UX-R96 RECEIVER UNIT

Adds 50~905 MHz continuous receiver capability.

Modes: FM, wide FM, AM

● UX-97 1200 MHz BAND UNIT

Adds all-mode operation on the 1200 MHz band.

Modes: SSB, CW, FM

Output power: 10 W

● UX-98 2400 MHz BAND UNIT

Adds all-mode operation on the 2400 MHz band.

Modes: SSB, CW, FM

Output power: 1 W

FILTERS

	Center frequency	Passband width	IC-970A/E/H	IC-575A/H	IC-275A/E/H IC-1275A/E	IC-375A IC-475A/E/H
FL-32A		500 Hz/ - 6 dB				
FL-100	9.0106 MHz	500 Hz/ - 6 dB		Either		
FL-101		250 Hz/ - 6 dB				
FL-102	9.0100 MHz	6.0 Hz/ - 6 dB				
FL-83	10.7491 MHz	500 Hz/ - 6 dB				
FL-132	10.8491 MHz	500 Hz/ - 6 dB	*1			
FL-133	10.9491 MHz	500 Hz/ - 6 dB	*2			

*1 For MAIN band.

*2 For SUB band.

■ : Applicable

□ : Not applicable



MOBILE TRANSCEIVER OPTIONS


Options	Transceivers	144 MHz SSB/CW band unit	Receiver unit	1200 MHz FM band unit	220 MHz FM band unit	50 MHz FM band unit	28 MHz FM band unit	Voice synthesizer unit	DTMF encoder/decoder units	Tone encoder unit	Tone squelch units	Digital code squelch unit	External speakers	DC power supplies	Optical fiber cable (20m)	Brackets	Mobile flexible microphone	Desktop microphones	Hand microphones	Power cable connector box	Interface unit	Antenna												
		UX-S92A/E	UX-R91A/E	UX-129A/E	UX-39A	UX-59A	UX-19A/E	UT-66	UT-55	UT-48	UT-51	UT-67	UT-50	UT-40	UT-29	UT-28	SP-12	SP-10	SP-7	PS-45	IC-PS30	OPC-189	MB-34	MB-32	MB-31	MB-21	HS-15 + HS-15SB	SM-20	SM-8	SM-6	HM-59	HM-58	HM-56/A	EX-767
		IC-901A/E									*3									*1														
		IC-2410A/E/H																		*1														
		IC-2400A/E									*3									*1														
		IC-3230A/E/H																		*1														
		IC-3220A/E/H								*4										*1														
		IC-2500A/E									*3									*1														
		IC-229A/E/H								*4				*2						*1														
		IC-228A/E/H								*4				*2						*1														
		IC-28H																		*1														
		IC-38A												*2						*1														
		IC-449A/E								*4										*1														
		IC-1201A/E												*2						*1														


*1 A hand microphone is already supplied with each transceiver. Appearances may differ from the supplied microphone.

*2 For "A/E" versions only. An optional OPC-102 DC POWER CABLE is required.

*3 Up to two UT-40's can be installed.

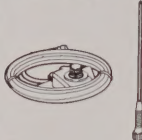

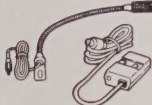

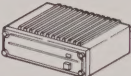
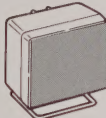




*4 Already installed in the U.S.A. version.

 : Applicable

 : Not applicable

MOBILE TRANSCEIVERS

IC-901A/E
IC-2410A/E/H
IC-2400A/E
IC-3230A/E/H
IC-3220A/E/H
IC-2500A/E
IC-229A/E/H
IC-228A/E/H
IC-28H
IC-38A
IC-449A/E
IC-1201A/E

AH-32 + AHB-32 MOBILE ANTENNAS AND TRUNK MOUNTS	HM-56/A, HM-58, HM-59, HAND MICROPHONES	HS-15 + HS-15SB MOBILE FLEXIBLE MICROPHONE AND SWITCHBOX	IC-PS30 DC POWER SUPPLY	PS-45 DC POWER SUPPLY
				
For 144/430 (440) MHz mobile operation.	HM-56/A has 14 DTMF code channels. HM-56/A and HM-59 have a 1750 Hz tone call function.	For all-around mobile operation.	Equipped with 3 output connectors. 13.8 V DC, 25 A.	For base station use. 13.8 V DC, 8A.
SP-7 EXTERNAL SPEAKER	SP-10 EXTERNAL SPEAKER	SP-12 EXTERNAL SPEAKER	EX-767 POWER CABLE CONNECTOR BOX	EX-766 INTERFACE UNIT
				
For base station operation. 8 Ω, 5 W.	Compact and easy to install. 4 Ω 5 W.	Can be installed on a sun visor, dashboard, etc. 8 Ω, 3 W.	Provides DC power to optional band units.	Gives you independent IC-901A/E control using a separate remote controller.

■ OPTICAL FIBER CABLE

- **OPC-189 OPTICAL FIBER CABLE** Allows you 20 m (65.6 ft) separate installation of your IC-901A/E remote controller and band units.

■ MICROPHONES

- **SM-6 DESKTOP MICROPHONE** Easy-to-use microphone for base station operation.
- **SM-8 DESKTOP MICROPHONE** Can be connected to 2 Icom transceivers.
- **SM-20 DESKTOP MICROPHONE** High-quality microphone with a heavy, stable base.

■ INTERNAL UNITS

- **UT-28 DIGITAL CODE SQUELCH UNIT** Digital code system that ensures a "personalized" squelch system with other stations.
- **UT-29, UT-40, UT-50, UT-67 TONE SQUELCH UNITS** Provide a "personalized" squelch system with other stations.
- **UT-48, UT-55 DTMF ENCODER/DECODER UNITS** Enables you to operate the pager and code squelch functions. For the IC-2410A/E/H and IC-3230A/E/H with the HM-56, the UT-55 also provides remote control operation.
- **UT-51 PROGRAMMABLE TONE ENCODER UNIT** Allows you to access a repeater that requires a subaudible tone.
- **UT-66 VOICE SYNTHESIZER UNIT** Announces the displayed frequency in English or Japanese.

■ BRACKETS

- **MB-21 REMOTE CONTROLLER BRACKET** Allows mounting the remote controller on a sun visor. Viewing angle is adjustable.
- **MB-31 BAND UNIT STACKING BRACKET** For stacking optional band units for the IC-901A/E.
- **MB-32 MOBILE MOUNTING BRACKET** For separating and installing the IC-901A/E system.
- **MB-34 JOINT PLATES** For stacking the IC-229 series transceiver.

• IC-901A/E BAND UNITS AND RECEIVER UNIT

Band unit	Band (MHz)	Mode	Output power	
			High	Low
UX-19A/E	28	FM	10 W	1 W
UX-59A	50	FM	10 W	1 W
UX-39A	220	FM	25 W	5 W
UX-129A/E	1200	FM	10 W	1 W
UX-R91A/E	See below		Receive only.	
UX-S92A/E	144	SSB, CW	25 W	5 W




UX-R91A/E's band and mode

520~1630 kHz/AM	137~236 MHz/FM
76~ 108 MHz/Wide FM	300~500 MHz/FM
108~ 137 MHz/AM	800~950 MHz/FM

• IC-901A/E EXPANSION INSTALLATION

By adding the following options, your IC-901A/E gives you a variety of installation choices.

Installation style	Additional band units	Type of control cable	Required option				
			EX-766	EX-767	MB-21	MB-31	MB-32
1-body	1	Unnecessary					
	2 or more	Unnecessary				Either	
Separate installation	None	Supplied 3.5 m (11.5 ft) cable					
		5 m (16.4 ft) optical fiber cable*					
	1	Supplied 3.5 m (11.5 ft) cable					
		5 m (16.4 ft) optical fiber cable*					
	2 or more	Supplied 3.5 m (11.5 ft) cable				Either	
		5 m (16.4 ft) optical fiber cable*					

 : Required  : Acceptable  : Not applicable

* Supplied with an optional EX-766 INTERFACE UNIT. For 20 m (65.6 ft) separate installation, an optional OPC-189 OPTICAL FIBER CABLE is available.



"P" SERIES TRANSCEIVER OPTIONS

Options		Transceivers																		
Internal units	UT-51	*2																		
	UT-50	*2																		
	UT-49	*2																		
	MB-48	*1																		
	MB-30																			
Mounting bracket	SP-13																			
Earphone	HS-51																			
Headset	HM-54																			
	HM-46																			
	HM-9																			
	FA-430BD																			
	FA-215BB																			
Flexible antennas	FA-140BF	*1																		
	OPC-254																			
	CP-12																			
	BP-114																			
	BP-113																			
Battery packs	BP-112																			
	BP-111	*1																		
	BP-110																			
Battery case																				
Options																				
Transceivers	IC-P2A/E		*1																	
	IC-P2AT/ET		*1																	
	IC-P3AT		*1																	
	IC-P4A/E		*1																	
	IC-P4AT/ET		*1																	

*1 The same type as supplied with the transceiver.

*2 For installation and operation, refer to "Tech Talk" which is available from your Icom Dealer.

*3 Already installed in the U.S.A. version.

: Applicable

: Not applicable

"P" SERIES HANDHELD TRANSCEIVERS


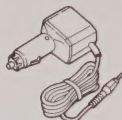




IC-P2A/E

IC-P2AT/ET

IC-P3AT

IC-P4A/E

IC-P4AT/ET

BC-80 DESKTOP CHARGER	BC-73E/D WALL CHARGER	BC-74A/E/D/V WALL CHARGER	CP-12 CIGARETTE LIGHTER CABLE WITH NOISE FILTER	OPC-254 DC POWER CABLE
				
Rapidly charges the BP-111-BP-114. Both AC and DC can be used.	Regularly charges the BP-111. Available in Europe and Asia only.	Regularly charges the BP-111-BP-114 and BP-110 with NiCd batteries.	Allows you to use your transceiver through a 12 V cigarette lighter socket.	For operating the transceiver or charging a battery pack.
HM-9 SPEAKER- MICROPHONE	HM-46 SPEAKER- MICROPHONE	HM-54 SPEAKER- MICROPHONE	HS-51 HEADSET	MB-30 MOUNTING BRACKET
				
Combination speaker and microphone.	Combination speaker and microphone. Equipped with an ear-phone jack.	Combination speaker and microphone	Includes VOX function, PTT and "one touch PTT."	For mounting your transceiver in a vehicle or to a wall.

■ FLEXIBLE ANTENNAS

- **FA-140BF** 144 MHz FLEXIBLE ANTENNA
- **FA-215BB** 220 MHz FLEXIBLE ANTENNA
- **FA-430BD** 430 (440) MHz FLEXIBLE ANTENNA

■ INTERNAL UNITS

- **UT-49*** DTMF DECODER UNIT Provides pager and code squelch functions with DTMF codes.
- **UT-50*** TONE SQUELCH UNIT Already installed in the U.S.A. version. Provides pocket beep, tone squelch and programmable tone encoder functions.
- **UT-51*** PROGRAMMABLE TONE ENCODER UNIT Allows you to access a repeater requiring a subaudible tone.

* For installation and operation of the IC-P2A/E or IC-P4A/E, refer to "Tech Talk" which is available from your Icom Dealer.

■ OTHER OPTIONS

- **SP-13** EARPHONE Provides clear receive audio in noisy environments.
- **MB-48** BELT CLIP

BATTERY PACKS AND BATTERY CASE

*Can be charged when NiCd batteries are installed.

	Output voltage	Battery capacity	Height
BP-110*	Battery case for R6 (AA) × 6		56.2 mm; 2.2 in
BP-111	7.2 V	400 mAh	34.5 mm; 1.4 in
BP-112	7.2 V	700 mAh	56.2 mm; 2.2 in
BP-113	7.2 V	1200 mAh	73.0 mm; 2.9 in
BP-114	12.0 V	400 mAh	73.5 mm; 2.9 in

BATTERY CHARGERS AND CHARGING TIMES

*1 When NiCd batteries are installed.

*2 Available in Asia and Europe only.

N/A: Not applicable.

	BP-110	BP-111	BP-112	BP-113	BP-114
BC-73E/D^{*2}	N/A	15 hrs.	N/A	N/A	N/A
BC-74A/E/D/V	15 hrs.*1	15 hrs.	15 hrs.	15 hrs.	15 hrs.
BC-80	N/A	1 hr.	1 hr.	1.5 hrs.	2 hrs.
CP-12	15 hrs.*1	15 hrs.	15 hrs.	15 hrs.	15 hrs.
OPC-254					

CARRYING CASES

	IC-P2A/E IC-P4A/E	IC-P2AT/ET IC-P3AT IC-P4AT/ET
BP-110	LC-95	LC-92
BP-111	LC-94	LC-91
BP-112	LC-95	LC-92
BP-113	LC-96	LC-93
BP-114	LC-96	LC-93



"SR/W/X" SERIES TRANSCEIVER OPTIONS

Options		Transceivers																						
Battery packs	BP-81																							
	BP-82																							
	BP-83																							
	BP-84																							
	BP-85																							
Battery case	BP-90																							
Cables	CP-13																							
	OPC-288																							
Flexible antennas	AH-20																							
	FA-140BB																							
	FA-430BB																							
	FA-1443B																							
	FA-1443BB																							
	FA-4312BA																							
Speaker-microphones	HM-65																							
	HM-70																							
Headset	HS-60																							
	SP-13																							
	MB-30																							
	MB-48																							
	UT-63																							
Tone squelch unit	AD-20																							
	BA-11																							
Other options																								

*1 The same type as supplied with the transceiver.

*2 Either a battery pack or battery case is supplied with the transceiver.

*3 The FA-1443B is the same type as supplied with the U.S.A. version. The FA-1443BB is the same as type supplied with other versions.

*4 Already installed in the U.S.A. version.

*5 An option for the BP-81-BP-84 and BP-90. The BC-77A/E/D/V, BC-78E/D CP-13 or OPC-288 is required.

: Applicable
 : Not applicable


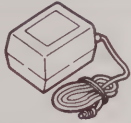

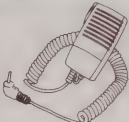




"SR/W/X" SERIES HANDHELD TRANSCEIVERS

IC-2SRA/SRE

IC-4SRA/SRE

IC-W2A/E

IC-X2A/E

BC-72 DESKTOP CHARGER	BC-80 DESKTOP CHARGER	BC-77A/E/D/V WALL CHARGERS	CP-13 CIGARETTE LIGHTER CABLE WITH NOISE FILTER	AD-20 BATTERY CHARGE ADAPTER
				
Rapidly charges the BP-81~BP-85. Both AC and DC can be used.	Rapidly charges the BP-81~BP-85. Also charges the BP-111~BP-114 for "P" series.	Regularly charges the BP-81~BP-84 and BP-90 with NiCd batteries.	Allows you to use your transceiver through a 12 V cigarette lighter socket.	Allows you to charge the BP-81~BP-84 and BP-90 with NiCd batteries.
HM-65 SPEAKER- MICROPHONE	HM-70 SPEAKER- MICROPHONE	HS-60 HEADSET	SP-13 EARPHONE	MB-30 MOUNTING BRACKET
				
Combination speaker and microphone. Equipped with an ear-phone jack.	Combination speaker and microphone.	Includes VOX function, PTT and "one touch PTT." Equipped with 2 earphones.	Provides you with clear receive audio in noisy environments.	For mounting your transceiver in a vehicle or to a wall.

■ FLEXIBLE ANTENNAS

- **AH-20** WIDEBAND FLEXIBLE ANTENNA
Receiving only.
- **FA-140BB** 144 MHz FLEXIBLE ANTENNA
- **FA-430BB** 430 (440) MHz FLEXIBLE ANTENNA
- **FA-1443B, FA-1443BB** 144/430 (440) MHz DUAL BAND FLEXIBLE ANTENNAS
- **FA-4312BA** 430 (440)/1200 MHz DUAL BAND FLEXIBLE ANTENNA

■ OTHER OPTIONS

- **BC-74E/D** WALL CHARGER Regularly charges the BP-85 through the charging jack on the BP-85.
- **BC-78E/D** WALL CHARGER Regularly charges the BP-81 and BP-82.
- **BA-11** BOTTOM CAP Protect bottom terminals when using an external DC power supply without a battery pack.
- **MB-48** BELT CLIP
- **OPC-288** DC POWER CABLE For operating the transceiver. Also charges the BP-81~BP-84 and BP-90 with NiCd batteries.
- **UT-63** TONE SQUELCH UNIT Already installed in the U.S.A. version. Provides pocket beep, tone squelch and programmable tone encoder functions. Contains separate circuits for each band.

BATTERY PACKS AND BATTERY CASE

* Can be charged when NiCd batteries are installed.

	Output voltage	Battery capacity	Height
BP-81	7.2 V	110 mAh	30.0 mm; 1.2 in
BP-82	7.2 V	400 mAh	40.0 mm; 1.6 in
BP-83	7.2 V	700 mAh	59.5 mm; 2.3 in
BP-84	7.2 V	1200 mAh	76.0 mm; 3.0 in
BP-85	12.0 V	340 mAh	76.0 mm; 3.0 in
BP-90*	Battery case for R6 (AA) × 6		59.5 mm; 2.3 in

BATTERY CHARGERS AND CHARGING TIMES

*1 When NiCd batteries are installed.

*2 Available in Asia and Europe only.
N/A: Not applicable.

	BP-81	BP-82	BP-83	BP-84	BP-85	BP-90
BC-72 BC-80	1 hr.	1 hr.	1 hr.	1 hr.	1.5 hrs.	N/A
BC-74A/E/D/V	N/A	N/A	N/A	N/A	15 hrs.	N/A
BC-77A/E/D/V	15 hrs.	15 hrs.	15 hrs.	15 hrs.	N/A	15 hrs. *1
BC-78E/D ^{*2}	15 hrs.	15 hrs.	N/A	N/A	N/A	N/A
CP-13 OPC-288	15 hrs.	15 hrs.	15 hrs.	15 hrs.	N/A	15 hrs. *1

CARRYING CASES

	IC-2SRA/SRE IC-W2A/E	IC-4SRA/SRE IC-X2A/E
BA-11		LC-71
BP-81		LC-71
BP-82		LC-72
BP-83		LC-72
BP-84		LC-73
BP-85		LC-73
BP-90		LC-72



"S" SERIES TRANSCEIVER OPTIONS

Options	Transceivers																											
Other options	BA-12																											
	BA-11																											
	AD-14																											
	UT-51																											
	UT-50																											
	UT-49																											
	MB-48																											
	MB-30																											
Internal units	SP-13																											
	HS-51																											
Belt clip	HM-54																											
	HM-46																											
Mounting bracket	HM-9																											
	FA-1443BA																											
Earphone	FA-1443B																											
	FA-430BB																											
Headset	FA-215BA																											
	FA-140BB																											
Speaker-microphones	OPC-254																											
	CP-12																											
Flexible antennas	BP-90																											
	BP-85																											
Cables	BP-84																											
	BP-83																											
Battery case	BP-82																											
	BP-81																											
Battery packs																												
Options																												

*1 The same type as supplied with the transceiver.

*2 The BP-82 or BP-90 is already supplied with the transceiver.

*3 The FA-1443B is the same type as supplied with the U.S.A. version. The FA-1443BA is the same type as supplied with other versions.

*4 Except for full duplex operation.

*5 For installation and operation, refer to "Tech Talk" which is available from your Icom Dealer.

*6 An option for the BP-81~BP-84 and BP-90. The BC-73E/D, BC-74A/E/D/V, CP-12 or OPC-254 is required.

: Applicable

: Not applicable

"S" SERIES HANDHELD TRANSCEIVERS

IC-2SA/SE











IC-2SAT/SET

IC-3SAT

IC-4SA/SE

IC-4SAT/SET

IC-24AT/ET

BC-80 DESKTOP CHARGER	BC-72 DESKTOP CHARGER	CP-12 CIGARETTE LIGHTER CABLE WITH NOISE FILTER	HM-9 SPEAKER- MICROPHONE	HM-46 SPEAKER- MICROPHONE
				
Rapidly charges BP-81~BP-85 and BP-111~BP-114. Both AC and DC can be used.	Rapidly charges BP-81~BP-85. Both AC and DC can be used.	Allows you to use your transceiver through a 12 V cigarette lighter socket.	Combination speaker and microphone.	Combination speaker and microphone. Equipped with an ear-phone jack.
HM-54 SPEAKER- MICROPHONE	HS-51 HEADSET	AD-14 BATTERY CHARGE ADAPTER	MB-30 MOUNTING BRACKET	BA-12 BATTERY CHARGE ADAPTER
				
Combination speaker and microphone.	Includes VOX function, PTT and "one touch PTT."	Allows you to charge BP-81~BP-84 and BP-90 with NiCd batteries.	For mounting your transceiver in vehicle or to a wall.	For charging "SAT/SET" internal batteries with BC-72 or BC-80.

■ FLEXIBLE ANTENNAS

- **FA-140BB** 144 MHz FLEXIBLE ANTENNA
- **FA-215BA** 220 MHz FLEXIBLE ANTENNA
- **FA-430BB** 430 (440) MHz FLEXIBLE ANTENNA
- **FA-1443B, FA-1443BB** 144/430 (440) MHz DUAL BAND FLEXIBLE ANTENNAS

■ INTERNAL UNITS

- **UT-49*** DTMF DECODER UNIT Ensures you pager and code squelch functions.
- **UT-50*** TONE SQUELCH UNIT Provides a "personalized" squelch system with other stations. Also functions as a programmable tone encoder.
- **UT-51*** PROGRAMMABLE TONE ENCODER UNIT Allows you to access a repeater requiring a subaudible tone.

* For Installation and operation of the IC-2SA/SE or IC-4SA/SE, refer to "Tech Talk" which is available from your Icom Dealer.

■ OTHER OPTIONS

- **BA-11** BOTTOM CAP Protects bottom terminals when using an external power supply. The same type as supplied with the "SAT/SET" series.
- **MB-48** BELT CLIP
- **OPC-254** DC POWER CABLE For operating the transceiver or charging a battery pack or "SAT/SET" internal batteries.
- **SP-13** EARPHONE Provides clear receive audio in noisy environments.

BATTERY PACKS AND BATTERY CASE

* Can be charged when NiCd batteries are installed.

	Output voltage	Battery capacity	Height
BP-81	7.2 V	110 mAh	30.0 mm; 1.2 in
BP-82	7.2 V	300 mAh	40.0 mm; 1.6 in
BP-83	7.2 V	600 mAh	59.5 mm; 2.3 in
BP-84	7.2 V	1000 mAh	76.0 mm; 3.0 in
BP-85	12.0 V	340 mAh	76.0 mm; 3.0 in
BP-90*	Battery case for R6 (AA) × 6		59.5 mm; 2.3 in

BATTERY CHARGERS AND CHARGING TIMES

*1 When NiCd batteries are installed.

*2 Available in Asia and Europe only.

*3 The BA-12 is required.
N/A: Not applicable

	"SAT/SET" internal batteries	BP-81	BP-82	BP-83	BP-84	BP-85	BP-90
BC-72	1 hr.*3	1 hr.	1 hr.	1 hr.	1 hr.	1.5 hr.	N/A
BC-80							
BC-73E/D*2	15 hrs.	15 hrs.	15 hrs.	N/A	N/A	N/A	N/A
BC-74A/E/D/N	15 hrs.	15 hrs.	15 hrs.	15 hrs.	15 hrs.	15 hrs.	15 hrs.*1
CP-12	15 hrs.	15 hrs.	15 hrs.	15 hrs.	15 hrs.	15 hrs.	15 hrs.*1
OPC-254							

CARRYING CASES

	IC-2SA/SE IC-4SA/SE	IC-2SAT/SET IC-3SAT IC-4SAT/SET	IC-24AT/ET
BA-11	LC-53	LC-57	LC-63
BP-81	LC-53	—	LC-63
BP-82	LC-55	LC-59	LC-65
BP-83	LC-55	LC-59	LC-65
BP-84	LC-56	LC-61	LC-66
BP-85	LC-56	LC-61	LC-66
BP-90	LC-55	LC-59	LC-65



HANDHELD TRANSCEIVER OPTIONS

Options	Transceivers	Other options										
		ST-10	BA-10	AD-12	UT-40	MB-22	MB-25	MB-24	MB-16D	MB-16	SP-13	
Tone squelch unit	Alligator clip											
Mounting brackets												
Earphone	Headset											
Speaker-microphones												
Flexible antennas												
DC-DC converter												
Cables												
Battery case												
Battery packs												
Options	Transceivers											
IC-2GA/GAT/GE												
IC-02A/AT/E												
IC-2A/AT/E												
IC-03AT												
IC-4GAT/GE												
IC-04AT/E												
IC-12GAT/GE												
IC-32A/AT/E												

*1 The same type as supplied with the transceiver.

*2 The BP-3, BP-4, BP-7 or BP-70 is already supplied with the transceiver.

*3 An option for the BP-3, BP-5A, BP-7 and BP-70.

*4 An optional DC-1 is required.

*5 Except for full duplex operation.

*6 Except for the IC-2GE, IC-4GE and IC-12GE.

*7 An earphone is already supplied with the transceiver.

Applicable

Not applicable

HANDHELD TRANSCEIVERS

IC-2GA/GAT/GE

IC-02A/AT/E

IC-2A/AT/E

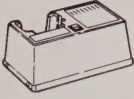

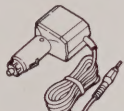
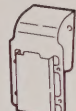





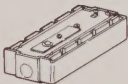
IC-03AT

IC-4GAT/GE

IC-04AT/E

IC-12GAT/GE

IC-32A/AT/E

BC-35, BC-36 DESKTOP CHARGERS	CP-10 BATTERY SEPARATION CABLE	CP-11 CIGARETTE LIGHTER CABLE WITH NOISE FILTER	MB-16 MOBILE MOUNTING BRACKET MB-24 MOUNTING BRACKET (Hanger-type)	MB-16D WALL BRACKET MB-25 MOUNTING BRACKET (Wall-type)
				
Rapidly charges the BP-2, BP-5, BP-5A, BP-7 and BP-8. Regularly charges the BP-3 and BP-70.	For separating a handheld from the battery pack.	Allows you to use your transceiver through a 12 V cigarette lighter socket.	Transceiver bracket for mobile operation.	For placing your transceiver in a convenient location.
HS-51 HEADSET	HM-9, HM-9L SPEAKER- MICROPHONES	HM-46, HM-46L SPEAKER- MICROPHONES	HM-54 SPEAKER- MICROPHONE	AD-12 EXTERNAL POWER ADAPTER
				
Includes VOX function, PTT switch and "one touch PTT."	Combination speaker and microphone.	Combination speaker and microphones. Equipped with an ear-phone jack.	Combination speaker and microphone.	For using a 13.8 V DC power source with your "G" series transceiver.

■ FLEXIBLE ANTENNAS

- **FA-2, FA-140BA** 144 MHz FLEXIBLE ANTENNAS
- **FA-215B** 220 MHz FLEXIBLE ANTENNAS
- **FA-3** 430 (440) MHz FLEXIBLE ANTENNAS
- **FA-1240T** 1200 MHz FLEXIBLE ANTENNA
- **FA-1443B** 144/430 (440) MHz DUAL BAND ANTENNA.

■ INTERNAL UNIT

- **UT-40** TONE SQUELCH UNIT Allows you tone squelch and pocket beep functions.

■ CABLES AND OTHER OPTIONS

- **BA-10** BOTTOM CAP Protects terminals on the base of your transceiver when using external power.
- **CP-1** CIGARETTE LIGHTER CABLE Charges a battery pack with a 12 V cigarette lighter socket.
- **DC-1** DC-DC CONVERTER Allows you to operate your IC-2A/AT/E using an external 13.8 V DC power source.
- **MB-22** ALLIGATOR CLIP Clips your transceiver to almost anything in a variety of convenient places.
- **SP-13** EARPHONE Provides you clear receive audio in noisy environments.
- **ST-10** SHOULDER STRAP Convenient for carrying your handheld.

BATTERY PACKS AND BATTERY CASE

	Output voltage	Battery capacity	Height
BP-2	7.2 V	450 mAh	39.0 mm; 1.5 in
BP-3	8.4 V	270 mAh	39.0 mm; 1.5 in
BP-4	Battery case for R6 (AA) × 6		49.0 mm; 1.9 in
BP-5	10.8 V	450 mAh	56.0 mm; 2.2 in
BP-5A	10.8 V	450 mAh	80.0 mm; 3.1 in
BP-7	13.2 V	450 mAh	80.0 mm; 3.1 in
BP-8	8.4 V	800 mAh	80.0 mm; 3.1 in
BP-70	13.2 V	270 mAh	60.5 mm; 2.4 in

BATTERY CHARGER AND CHARGING TIMES

*When NiCd batteries are installed.
N/A: Not applicable.

	BP-2	BP-3	BP-4	BP-5	BP-5A	BP-7	BP-8	BP-70
BC-16U/E BC-17 BC-18	N/A	N/A	N/A	N/A	15 hrs.	15 hrs.	15 hrs.	9 hrs.
BC-25U/E BC-26E BC-27	N/A	15 hrs.	N/A	N/A	N/A	N/A	N/A	N/A
BC-35 BC-36	1.5 hrs.	15 hrs.	15 hrs.*	1.5 hrs.	1.5 hrs.	1.5 hrs.	3 hrs.	9 hrs.
CP-1 CP-11	N/A	15 hrs.	N/A	N/A	15 hrs.	15 hrs.	15 hrs.	9 hrs.

CARRYING CASES

	IC-02A/AT/E IC-03AT IC-04AT/E	IC-2GA/GE IC-4GA/GE IC-12GE	IC-2GAT IC-4GAT IC-12GAT	IC-32A/AT/E
BP-2	LC-11	LC-35	LC-38	LC-41
BP-3	LC-11	LC-35	LC-38	LC-41
BP-4	LC-11	LC-35	LC-38	LC-41
BP-5	—	—	LC-39	LC-42
BP-5A	LC-14	LC-37	LC-40	LC-43
BP-7	LC-14	LC-37	LC-40	LC-43
BP-8	LC-14	LC-37	LC-40	LC-43
BP-70	—	—	LC-39	LC-42

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